In the Claims

1. (Currently amended) A computerized method ~~permitting compact ways to update fuzzy relationships between entities in an audiovideo sequence, or serial set of sequences, the method~~ comprising:

writing a description scheme containing relations corresponding to relationships between ~~the~~ entities in ~~the audiovideo~~ a multimedia sequence;

determining the relations for representation by parameters to define ~~the~~ fuzzy relationships, each parameter having numerical values representing confidence in the corresponding fuzzy relationship;

obtaining at least one of

a numerical value for each parameter,

a description of the parameter containing a numerical value, and

a description capable of setting the parameter dynamically; and

modifying the numerical values representing the confidence in response to changes in the parameter as the multimedia sequence progresses.

2. (Previously amended) The method of claim 1 further comprising:

combining an MPEG7 State DS (description scheme) with an additional field in an MPEG7 GraphType DS.

3. (Cancelled)

4. (Previously amended) The method of claim 1 further comprising:

running, by a user, a query based on membership of an entity in one of the relations.

5. (Previously amended) A computer-readable medium having executable instructions to cause a computer to perform a method comprising:

writing a description scheme containing relations corresponding to relationships between entities in an audio visual sequence;

determining the relations for representation by parameters to define fuzzy relationships, each parameter having numerical values representing confidence in the corresponding fuzzy relationship;

obtaining for each parameter at least one of

a numerical value,

a description of the parameter containing a numerical value, and

a description capable of setting the parameter dynamically; and

modifying the numerical values representing the confidence in response to changes in the parameter as the multimedia sequence progresses.

6. (Previously amended) The computer-readable medium of claim 5, wherein the method further comprises:

combining an MPEG7 State DS (description scheme) with an additional field in an MPEG7 GraphType DS.

7. (Cancelled)

8. (Previously amended) The computer-readable medium of claim 5, wherein the method further comprises:

performing a query based on membership of an entity in one of the relations.

9. (Currently amended) A computerized method ~~of weighting a fuzzy relation between description schemes in a content description for a multimedia sequence~~ comprising:

deriving a confidence value for ~~the~~ a fuzzy relation from a parameter associated with one of ~~the~~ a plurality of description schemes in a content description for a multimedia sequence, the confidence value representing a degree to which the fuzzy relation is a member of a subset of relations among the description schemes; and

modifying the confidence value in response to changes in the parameter as the multimedia sequence progresses.

10. (Previously presented) The method of claim 9, wherein the parameter is an attribute value.

11. (Previously amended) The method of claim 9, wherein the confidence value is further derived from a set of parameters associated with the description schemes.

12. (Cancelled)

13. (Previously presented) The method of claim 9, wherein the description schemes represent entities in the multimedia sequence, the fuzzy relation represents a relationship between the entities, and the confidence value represents a state of the relationship.

14. (Previously presented) The method of claim 13, wherein the state of the relationship is described by a state description scheme that specifies the parameter.

15. (Previously presented) The method of claim 9 further comprising:

associating the description schemes with a set of vertices in a graph and the subset of relations with a set of edges among the set of vertices; and

calculating the confidence value of the fuzzy relation using a membership function based on graph mapping.

16. (Previously presented) The method of claim 15, wherein the membership function is $m_R(x) = g \circ f(x)$, where R is the set of edges over the set of vertices $A \times B$, g defines a function for the parameter over a parameter space PS, and f is a parameterization function $f : A \times B \rightarrow PS, g : PS$.

17. (Previously presented) The method of claim 15 further comprising:

writing the graph without the edge representing the fuzzy relation if the confidence value is zero.

18. (Previously amended) A computer-readable medium having executable instruction to cause a computer to perform a method comprising:

deriving a confidence value for a fuzzy relation between description schemes from a parameter associated with one of the description schemes, the confidence value representing a degree to which the fuzzy relation is a member of a subset of relations among the description schemes in a content description for a multimedia sequence; and

modifying the confidence value in response to changes in the parameter as the multimedia sequence progresses.

19. (Previously presented) The computer-readable medium of claim 18, wherein the parameter is an attribute value.

20. (Previously amended) The computer-readable medium of claim 18, wherein the confidence value is further derived from a set of parameters associated with the description schemes.

21. (Cancelled)

22. (Previously amended) The computer-readable medium of claim 18, wherein the description schemes represent entities in the multimedia sequence, the fuzzy relation represents a relationship between the entities, and the confidence value represents a state of the relationship.

23. (Previously presented) The computer-readable medium of claim 22, wherein the state of the relationship is described by a state description scheme that specifies the parameter.

24. (Previously presented) The computer-readable medium of claim 18, wherein the method further comprises:

associating the description schemes with a set of vertices in a graph and the subset of relations with a set of edges among the set of vertices; and

calculating the confidence value of the fuzzy relation using a membership function based on graph mapping.

25. (Previously presented) The computer-readable medium of claim 24, wherein the membership function is $m_R(x) = g \circ f(x)$, where R is the set of edges over the set of vertices $A \times B$, g defines a function for the parameter over a parameter space PS, and f is a parameterization function $f : A \times B \rightarrow PS$, $g : PS$.

26. (Previously presented) The computer-readable medium of claim 24, wherein the method further comprises:

writing the graph without the edge representing the fuzzy relation if the confidence value is zero.